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IMPACT OF TAX REVENUE AND GOVERNMENT EXPENDITURE ON THE REAL GROSS DOMESTIC PRODUCT OF NIGERIA

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Abstract

This study evaluates the effect of tax revenue and government spending on the Real GDP of Nigeria for 1990 to 2022. It employs the ex post facto research plan, while using the OLS multiple regression technique to ascertain the impact of the explanatory variables on the dependent variable. The findings show that tax has a positive but weak effect while government spending has adverse and little impact on the Real GDP of Nigeria. The implication is that, for a prolonged period, Nigeria's fiscal advancement and public spending were conversely connected. Consequently, Federal Government of Nigeria is advised to reorient their pattern of spending by allocating more of government finances to productive expenditures. In addition, they should exploit the country's revenue prospects by expanding its revenue base.

1.0 Introduction

The blueprint of a public authority concerning how it would utilize its economic instruments, such as taxes and expenditures, optimally is commonly termed fiscal policy (Agbo, 2023). It is the avenue through which the levels of spending and tax charges are modified for the purpose of watching and directing an economy (Ikechi et al. 2023). Fiscal policy is a government policy concerning its optimal utilization of some economic instruments, namely tax and spending (Agbo, 2023). Fiscal policy considered as essential avenue through which government intervenes in their country's economic matters (Kasasbeh, 2021; Farhi & Werning, 2016). A crucial state for establishing an effective tax policy is by comprehending and establishing some suitable connections between government revenue and expenditures (Rotimi et al., 2021). However, the nexus between them is dependent upon the nature of tax policy embraced by the public authority, The avenues of public finance differ from one nation to another and alters with time; they are determined by the way that the economy fluctuates. For instance, Nigeria's finance base was initially hooked on agriculture. This situation is reported to have made the economy of Nigeria susceptible to commodities and price fluctuations for some years gone by. . The several efforts mounted by different administrations to diversify the economy of the country have been considered as mere contrivance or political brainwashing instead of calculated attempts at rebuilding / developing the economy as well as the lives of her inhabitants.

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The impact of both tax revenue and government expenditure has continued to be interesting aspects of finance which have received a lot of awareness in the literary circle and empirical investigation (Ikechi et al.,2023).The impacts of both aspects of fiscal policy on an economy have also become subjects of controversy(Ikechi et al.,2023). The public authority the of every country is encumbered with huge responsibilities which are affected enormously by the funds collected by the government from various sources including taxes (Adefolake & Omodero, 2022). Since tax is a crucial source of revenue foe all the levels of governance in Nigeria, it is largely key in empowering the government to attain its macro-financial objectives. Abayomi - Nimenibo (2017b) considers taxation as a procedure initiated by government to exercise control over tax and its collection. In addition, tax is commonly imposed to minimize the creation of certain goods and services , to protect infant businesses, to reduce the quantum of income discrepancy within the society, to regulate business and to keep inflation under control (Edewusi & Ajayi,2019).As tax has some on effect financial variables, with its ability to affect consumption patterns, the public authority of every country will endeavor to maximize the revenues accruing therefrom (Asaolu et al.,2018). In addition, tax policy is considered as a strong instrument which every nation can utilize to enhance community progress (Mathew,2014).

Many people are in favor of government engaging in heavy amount of spending because doing so will make more money to circulate. It boosts investment and curbs tax avoidance. However, government spending comes with some obvious repercussions. Government becomes the largest buyer of goods and services as it engages in widespread activities. This was hitherto evidenced in Nigeria (Adefolake & Omodero, 2022). The country has been increasing its expenditure size Adefolake & Omodero,2022). However, as observed by Akpan (2005), the observed rise in daily spending by Nigeria seems to be applicable to several other countries who do not have much regard to their levels of economic situations as they spend money.

Real GDP is considered as a macroeconomic instrument that measures the total economic output of a nation after having been adjusted to control for movements in prices (McLaughlin ,2023) . Public expenditure and public revenue are the two sides of fiscal management in every country in the globe (Adefolake & Omodero,2022). For this reason both variables are essential in determining the direction of the growth of an economy.

Problem Statement

Every country strives to achieve rapid economic progress. Finances are necessary for achieving this objective since development entails spending. The expenditure defrayed is expected to make available the essential infrastructures including health care, educational, social and security services, etc.(Odinakachi et al.,2021).However, the conclusions of empirical studies on the link between public revenues and expenditures appear inconsistent and conflicting(Odinakachi et al.,2021).For instance, arising from the manoeuvres surrounding this subject, scholars have emerged with four alternative assumptions to explain the issue and provide some justification for fiscal policy. However, they have succeeded only in creating changes as a means for solving the puzzle. . The hypotheses include the revenue-spend hypothesis, the spend-income speculation which forecasts that adjustments of spending is capable of prompting alterations in pay – developed by Peacock and Wiseman (1979).Others are the hypothesis of fiscal synchronization and the institutional separation hypothesis. Notwithstanding the fact that insufficient revenue mobilization obstructs economic progress, the issue has not been given much attention in literature (Rotimi et al,2022). It is for this reason that this study has embarked upon determining the link between tax revenue and public spending on economic growth proxied by real GDP. It selects

Nigeria as its location, reason being that despite the large sizes of tax revenue reported as collected over the decades by Nigeria, the revenue has been found inadequate in meeting its social and public expenditure requirements (Adefolake & Omodero,2022).In addition, the manner in which tax policy implementation is taking place in the country is becoming worrisome with regard to revenue collection and the accompanying narrow fiscal space and debt accumulation (Ikechi et al.,2022). Contrary to expectation, it appears that increases in revenue generation does not match with the level of government's expenditure (Ikechi et al., 2022). Many contend that such situation on ground has influenced the shape, direction and implementation of monetary policy in Nigeria. As noted by Ikechi et al (2023), this work will help policy makers in taking deciding if enabling environment has been created in the country for economic growth to take place. The study covers the period 1990 to 2022.Government revenue under reference relates to tax receipts only while government expenditure covers both capital and recurrent spending by the government

The remaining sections of the study have been arranged as follows:-In section 2, we review the related literature. Section 3 provides methodology employed. Section 4 presents the results and discussion while Section 5 concludes the research.

2.0 Review of Related Literature

2.1 Conceptual Literature

2.1.1 Government Revenue

Government revenue also referred to as public revenue is the finance that government mobilizes from taxes, income from property and receipts from transfers at different levels of governance

The monies collected by government by borrowing through selling bonds, are not classified as government revenue (StudySmarter,2023). In Nigeria, government revenue all the taxes and fees collected from avenues that are not within the government domain (Odinakachi et al.,2021). Government revenue could also include printed currency of reserve bank.

2.1.1.1 Sources of government revenue. The sources of revenue of federal government are commonly grouped as oil and non-oil revenue sources. They are sub-headed under five categories, namely pay as you earn (PAYE), direct assessment, road taxes, other taxes and revenue from ministries, departments and agencies (MDAs)

2.1.1.2 Tax Revenue

This is defined as a compulsory levy paid to government for goods and services from time to time by private enterprises and individual persons (Agunbiade & Idebi,2020). The demand for governments to provide public amenities and carry out other developmental projects which would improve the living standards of their citizens and meet their recurring expenses makes it necessary to intensify revenue mobilization activities both within and externally. Tax collection is one among the alarming alternative approaches for generating revenue (Ejoh et al.,2015). One can to classify taxes into those are direct and others that are indirect. Direct tax is the type of tax imposed directly to a person or organization. The person or organization is mandated to remit it via a notice of assessment (Omodero et al.,2021). Indirect taxes are the taxes whose weights are carried not by the persons or organizations foisted upon but are shifted to other individuals who will then carry them. They are levied on goods and services whose tax weights fall on the consumers (Abomaye-Nimenibo,2017b; Omodero,2021). Odinakachi et al. (2021) presents the problems of revenue mobilization in Nigeria as including (i) over-reliance on revenue allocation from federation account, (ii) absence of capable and honest human resources and(iii) insufficient

mobility and infrastructural facilities. Others are tax dodging, interference by politicians, issue of byelaws, high literacy rate, abysmal living standards, etc.

2.1.2 Government Expenditure

This refers to the spending done by the public authority of a country regarding general or particular demands for public goods and services like pension, healthcare, security, etc. (Wikipedia,2023).It is the expenditure incurred by government at all levels to cater for the aggregate needs of individuals in their territories (Odinakachi et al.,2021; Bhatia,2008).

2.1.2 Real Gross Domestic Product (Real GDP)

McLaughlin (2023) defines real gross domestic product as a metric adjusted for inflation which marrows the worth of all the goods and services turned out in an economy in one particular year. It is stated in base-year prices and many a time referred to as constant-price GDP or constant-dollar GDP. McLaughlin (2023) asserts that governments employ both nominal and real GDP as metrics for analyzing economic development and purchasing power in one period.

2.2 Theoretical framework

Theories exist concerning tax revenue and government expenditure. Notable among them are the revenue postulation on tax policy, Musgrave's postulation on public expenditure, Wiseman – Peacock hypothesis, Wagner's law of increasing State activity as well as the Keynesian theory of expenditure. This work was anchored on both the revenue theory and Keynesian expenditure theory.

(a)Revenue Theory

This theory contends that governments should raise funds and utilize same to fund public speculations (Odinakachi,2021). Public authorities make decisions with regard to how best to allocate the generated scarce resource to alternative contending areas.

In taking such decisions, compromises are commonly made.

(b) The Keynesian Theory of Expenditure

Keynes considers public spending as an exogenous factor which can be employed as policy instruments for boosting financial development. Keynes claims that public spending can contribute to financial development positively (Odinakachi,2021). As such, an expansion in public spending is likely going to give rise to an increase boost in business, productivity and speculation through some multiplier effects on aggregate demand.

2.2 Empirical Literature

In their study, Oyinlola and Akinibosun (2013) evaluated the link between public spending and economic growth in nNigeria for1970-2009.They used recurrent expenditure, capital expenditure, administrative expenses, community and social service transfer. Results indicated that there was a cointegrating *nexus* among the variables. Also, Kanu et al, (2014) investigated the link between Nigeria's revenue and expenditure profiles for 1970 to 2011. Findings indicated a mixed bag picture. First, there is a strong unidirectional causality between spending and revenues for 4 out of 8 revenue–expenditure pairs. This agrees with the spend-revenue hypothesis. Second, a strong bidirectional causality was observed between four out of the 8 receipt –expenditure pairs. This equally demonstrates that revenue-expenditure correlation exists at the federal tier of government and that fiscal synchronization hypothesis prevails in Nigeria.

Another study by Gukat (2015) sought explore the correlation between what government spends on human capital

development and economic growth. Employing the error correction mechanism, it was found that public spending on human resources fundamentally influences monetary development in Nigeria. There were other works that obtained similar results, namely Ohwofasa et al. (2012) and Chude and Chude (2013).

In a later period, Inyama et al. (2016) employed regression analysis to evaluate the effect of VAT, customs and excise duties on economic growth in Nigeria. The outcome was that VAT, customs tariffs and excise levies had a positive effect on economic growth. Using OLS technique.

Also, Echekeba and Amakor (2017) studied the effect of public spending on economic growth in Nigeria. The authors employed GDP as the dependent variable, while using defense expenditure, general administration, education and health expenditures as explanatory variables. Results showed that the expenses on general administration and education had a strong effect on economic growth.

Further, Asaolu et al. (2018) explored the link between tax revenue and economic growth in Nigeria from 1994 to 2015, using descriptive and historical research plan. Results showed that there was an adverse but strong connection between VAT and economic growth.

Hieu (2019) equally studied the impact of direct and indirect taxes on the economy of Vietnam for the period 2003 to 2017. The author employed simple linear regression technique. Results showed that indirect tax had positive influence on economic growth but the impacts of direct taxes were discreet.

Finally, John and Dickson (2020) employed error correction models to examine the impact of tax revenue on the growth of an economy, using adjusted and unadjusted GDP from 1984 to 2018. Results indicated that before GDP was controlled for inflation, PPT had a positive but weak effect on economic growth. VAT and CIT had strong and adverse influence on adjusted GDP. With a descriptive and inferential statistical technique, correlational and regression statistics and *ex post facto* research design, Etim et al. (2021) sought to explore the effect of direct and indirect taxation on economic growth in Nigeria. The authors concluded that indirect taxes have a stronger negative effect on economic growth.

3.0 Methodology

3.1 Research Design

Ex post facto research plan was employed by this work. The data utilized were retrieved from the editions of the CBN statistical bulletin covering the study period. The aim was to evaluate the effect of government tax revenue and public expenditure on the Real GDP in Nigeria for 1990 to 2022.

3.2 Model Specification

Multiple regression model was employed in evaluating the data series and specified as follows:-

$$RGDP = f(TAX, GEXP) \dots \dots \dots (3.1)$$

The mathematical form of the model is:

$$RGDP_t = \beta_0 + \beta_1 TAX_t + \beta_2 GEXP_t \dots \dots \dots (3.2)$$

The econometric form of the model is specified as:

$$RGDP_t = \beta_0 + \beta_1 TAX_t + \beta_2 GEXP_t + \mu_t \dots \dots \dots (3.3)$$
$$\beta_1 < 0, \beta_2 > 0$$

Where;

RGDP= Real Gross Domestic Product

f= functional relationship

TAX= Government Taxation

GEXP= Government Expenditure

B₀= Constant

β_1, β_2 = are the relative slope coefficients and partial elasticity of the parameter.

μ_t = stochastic error term.

3.3 Prediagnostic Tests

Preliminary tests were conducted to unveil the features of the data and, subsequently, ensure the appropriateness of the analytical tool employed by the research study:-

(i) Stationarity (Unit Root) Test

The unit root test was conducted in order to prevent conducting a misleading regression. Using this examination, it was possible to verify if all the time series data had constant means, constant variances, and constant covariance. Augmented Dickey-Fuller approach was employed because it takes serial correlation into account. Its model was stated as follows: $\Delta Y_t = \beta_1 + \beta_2 t + \delta Y_{t-1} + \sum_{i=1}^m \alpha_i \Delta Y_{t-i} + \varepsilon_t$ (3.4).

Decision Rule: The variable is stationary if the ADF test statistic is higher than the MacKinnon critical value of five per cent. If not, it is not stationary

(ii) Co-integration Test: This was done to ensure that some long-term connection existed among the historical data. Econometrics theory posits that two variables shall be co-integrated, if they possess consistent or lasting association. One can avoid conducting a wrong regression scenario by using co-integration as a pre-test. The ADF test statistic was applied to the residuals as recommended by Gujarati (2006).

$$\mu_t = \beta_2 + \beta_1 \text{RGDP}_t + \beta_2 \text{GOVEXP}_t + \beta_3 \text{GTA} \dots\dots\dots (3.5)$$

Decision Rule: If the ADF test statistic is greater than the critical value at 5%, then the variables are co-integrated (values are checked in absolute term).

(iii) Error Correction Mechanism

Given that there was a long-term relationship among the time series variables, we considered it worthwhile estimating the error correction mechanism to determine the rate at which the dependent variable returned to equilibrium to the independent variable after some levels of variations, i.e. to derive the numerical value of the magnitude of the short run dynamics or disequilibrium.

The model was specified as follows:

$$\Delta \text{RGDP}_{t+1} = \alpha_0 + \alpha_3 \Delta \text{GOVEXP}_t + \alpha_4 \Delta \text{GTAX}_t + \alpha_a \text{Ut}_{-1} + \varepsilon_t \dots\dots\dots (3.6)$$

Decision Rule: The expected sign of the outcome in ECM should be negative since positive ECM results would imply that there is some error in model misspecification or a sign of structural changes.

4.0 Empirical results and Discussion

4.1 Empirical Results

The outcomes of the empirical evaluation are presented as follows:-

4.1.1 Unit Root Test

The unit root of all the variables were determined, using the ADF. The following hypotheses served as the assessment's foundation:

H_0 : The variables are non-stationary, which means that they do not have root.

H_1 : The variables are stationary, which means that they do not have unit root.

The result of the ADF test for stationarity are summarized below:

Table 1: Result of the ADF Test for Unit Root

Variables	ADF Test Statistic	5% Critical Value	Order of Integration
RGDP	-2.158009	-1.950117	I(1)
TAX	-5.339835	-3.574244	I(0)
GEXP	-5.020257	-3.552973	I(1)

Table 1 shows that tax collection is fixed at level structure. In other words, they coordinate at 0; I (0). Government expenditure and Real GDP are fixed at I (1).

This result aligns with *a priori* expectation as most full scale fiscal historical data are known to be behaving this way. The absence of stationarity at level indicated the absence of short-term associations among the time series data. This necessitated conducting a co-mix test. The intention was to ascertain whether the data had long term relationship that allowed them to be co-incorporated without coming to wrong conclusions, even when none of those components were structurally permanent. Even though a relapse with non-fixed historical data components will result in some unreliable (non-significant) outcome, if these parts work together and possess some long-run relationship, the conclusion would be satisfactory(Gujarati (2006).

4.1.2 Co-integration Test Result

The research used Engel and Gujarati's ADF (Added Dickey-Fuller) test on the recurrent remainders to examine whether there was co-integration among the variables. The ADF test on residuals also applies a decision rule. The findings are summarized below:

Table 2: Co-integration Test Result

Null Hypothesis: ECT has a unit root

Exogenous: Constant, Linear Trend

Lag Length: 0 (Automatic - based on SIC, maxlag=6)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-5.080648	0.0017
Test critical values:		
1% level	-4.323979	
5% level	-3.580623	
10% level	-3.225334	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(ECT)

Method: Least Squares

Date: 05/29/23 Time: 12:18

Sample (adjusted): 1992 2022

Included observations: 28 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ECT(-1)	-1.013978	0.199577	-5.080648	0.0000
C	-24.41189	167.1378	-0.146058	0.8850
@TREND("1981")	0.844064	6.479228	0.130272	0.8974
R-squared	0.508022	Mean dependent var		-6.125021
Adjusted R-squared	0.468664	S.D. dependent var		379.8842
S.E. of regression	276.9082	Akaike info criterion		14.18621
Sum squared resid	1916954.	Schwarz criterion		14.32894
Log likelihood	-195.6069	Hannan-Quinn criter.		14.22984
F-statistic	12.90765	Durbin-Watson stat		2.004190
Prob(F-statistic)	0.000141			

From the outcome above test, the ADF test statistics (-5.080648) is above the 5% critical value (-3.580623) absolutely. . This means that the residuals are stationary. In other words, the variables are co-integrated.

4.1.3 Error Correction Mechanism Result

Table 4.: ECM Test Result

Dependent Variable: D(LRGDP)

Method: Least Squares

Date: 05/29/23 Time: 12:18

Sample (adjusted): 1992 2022

Included observations: 28 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.051287	0.010561	4.856244	0.0001
D(GEXP)	-1.74E-05	1.56E-05	-1.115542	0.2757
TAX	8.15E-07	4.29E-06	0.190188	0.8508
ECT(-1)	-1.67E-05	2.64E-05	-0.633204	0.5326
R-squared	0.058863	Mean dependent var		0.046902
Adjusted R-squared	-0.058780	S.D. dependent var		0.034655
S.E. of regression	0.035659	Akaike info criterion		-3.698054
Sum squared resid	0.030518	Schwarz criterion		-3.507739
Log likelihood	55.77275	Hannan-Quinn criter.		-3.639873
F-statistic	0.500353	Durbin-Watson stat		0.532565
Prob(F-statistic)	0.685586			

Table 4 shows that the magnitude of the short-run disparity is -0.0000167. The negative sign indicates a convergence from short-run to long-run and indicates that a causal link between the explanatory and dependent

.Further, this finding indicates that the extent of the short-run dynamics is 0.00167% and a very low speed of adjustment after a shock.

4.1.4 Regression Results

The variables taken into account in the results of the regression are Real Gross domestic Product (RGDP) (dependent variable) and Taxation (TAX) and Government Expenditure (GEXP) (independent variables). The results are presented in table 5.:

Table 5: Regression Results

$$RGDP = 0.051287 + 0.0000174TAX - 0.000000815GEXP$$

$$S.E = (0.010561) (0.0000156) (0.00000429)$$

$$T^* = 4.856244 -1.115542 \ 0.190188$$

$$R^2 = 0.058863$$

$$\text{Adjusted } R^2 = -0.058780$$

$$F^* = 0.500353$$

$$\text{Durbin-Watson statistics} = 0.532565$$

The calculated coefficient values for β_0 , β_1 and β_2 are 0.051287, 0.0000174, and -0.000000815, respectively. The A priori expectations are compared with test results are presented in table 6 as follows:

Table 6: Comparison of A Expectations with regression Results:

Variable(s)	Expected Signs	Observed Signs	Results
TAX	-Ve	+Ve	DNCWES
GEXP	+Ve	-Ve	DNCWES

DNCWES – Does Not Conform With Expected Sign

4.1.4.1 Interpretation of Regression Results

The suggestion of the coefficients the variables from the evaluated model is consistent with the *a priori* assumptions. Government tax revenue had a positive and weak impact on Real GDP in Nigeria. A unit rise in tax revenue caused approximately 0.0000174 increase in the Real GDP if all other factors impacting real GDP should remain constant. Public spending has negative and little effect on the Real GDP in Nigeria. A unit rise in public spending occasions approximately 0.000000815 decrease in the Real GDP in Nigeria, if all other factors impacting Real GDP should remain constant, The constant term, β_0 , (0.051287), implies that the regression model precisely passes through the location 0.051287. This means that if the values of the explanatory variables were to be at zero levels, the value of the Real GDP would have been 0.051287 (see Gujarati, 2007). Also, the R^2 (0.058863) connotes that the regression model explains only about 5.89 percent of the increases/ decreases in the Real GDP. The coefficient of determination (R^2) of approximately 5.89 percent indicates that the explanatory variables have very little predictive power over Real GDP. That being the case, the variable's integrity of fit is rather bad.

T-Test

In running the T-Test, we equally used the 5% level of significance (that is, $5/100=0.05$, $0.05/2=0.025$) and 39 as the degree of freedom. Looking at the distribution table, it is evident that $t_{0.025,39} = 2.042$. The outcome of the t-

test presented in table 7 was, therefore, evaluated using the critical value of 2.042 together with the value of calculated t-statistic for each of the variables.

Table 7: Result of t-Test of Significance

Variables	t-computed (t^*)	t-tabulated ($t_{\alpha/2}$)	Conclusion
TAX	0.190188	2.042	Non-significant
GEXP	-1.115542	2.042	Non-significant

Significant (Reject H_0 ; accept H_1),

Non-significant (Accept H_0).

The null hypothesis was accepted based on the result of the t-test for tax revenue, $t^* < t_{\alpha/2}$, ($0.190188 < 2.042$). Consequently, tax revenue was statistically unimportant, and therefore had little effect on Real GDP. For GEXP, $t^* < t_{\alpha/2}$, ($1.115542 < 2.042$). Consequently, we accepted the null hypothesis. Hence, GEXP was statistically non-significant, implying that government spending had little effect on Real GDP.

F-test

The degree of freedom for the numerator (V_1) and the denominator (V_2) were given as $K-1$ and $n-K$ respectively. Here, N = sample size = 39; K = number of the parameters including the constant term = 3 $V_1 = 3-1=2$, $V_2 = 39-2=37$, $df = (2,37)$ at 5 per cent significance level and $df = (2,37)$, $f_{0.05} = 3.26$ and $F^* = 0.500353$. Since $f^* > f_{0.05}$, As such, the null hypothesis was accepted. This implies that the explanatory variables (tax revenue and government expenditure), had no joint influence on Real GDP in Nigeria. Thus, the regression was not significant.

The findings of the regression model were further subjected to autocorrelation and normality tests.

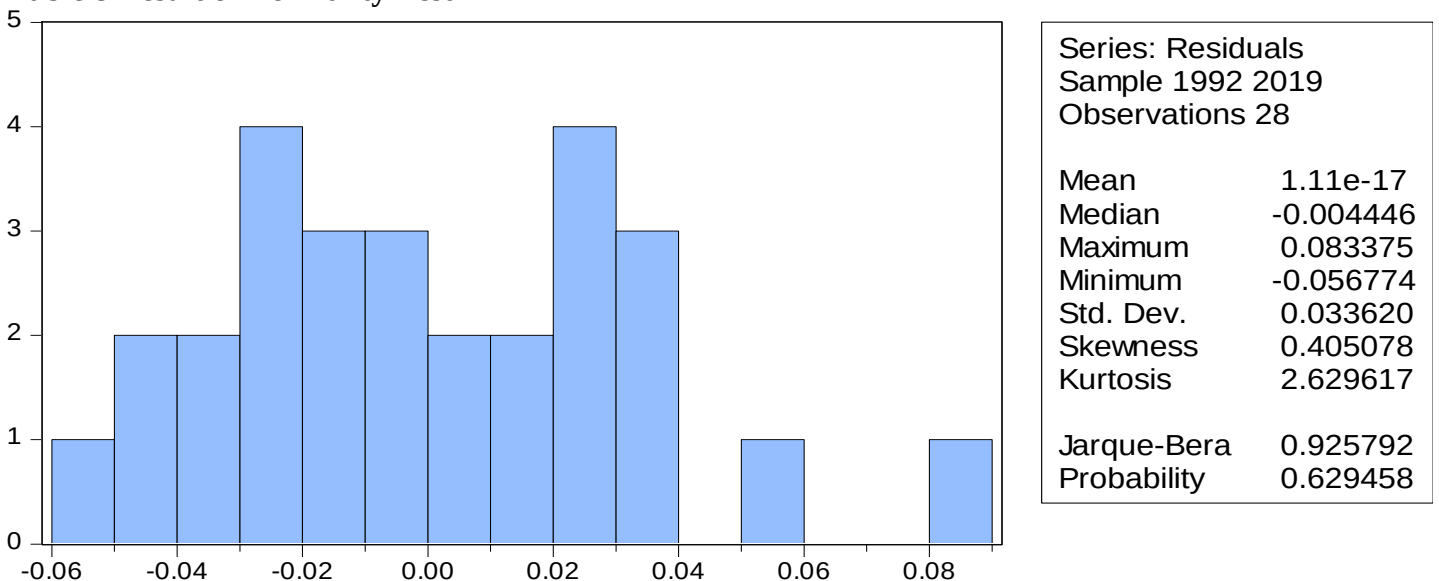
Autocorrelation Test

Using the Durbin-Watson (D-W) statistic, we observed that the region of no autocorrelation (positive or negative) was as follows: $du < d^* < (4-du)$ $du = 1.60$ $d^* = 0.532565$ $(4-du) = 4 - 1.60 = 2.40$ By substitution, the region became: $1.60 > 0.532565 < 2.40$ This result shows that autocorrelation problem was not in the model.

Normality Test

The Jarque-Bera test of normality was employed to conduct the normality test. The test is predicated on the requirement that K should be close to or exactly 3, and S should be close to or exactly 0, resulting in a Jarque-Bera value which is close to or exactly 0. This is the requirement for normal distribution.

Table 8 Result of Normality Test



From table 8, the probability of Jarque-Bera is given as 0.629458. This is greater than 0.05. Hence, the residuals are normally distributed (ND).

4.2 Discussion

This work evaluated the effect of tax revenue and government expenditure on the Real GDP for 1990 to 2022. The estimates disclose that none of the variables exerted a strong influence on Real GDP at five percent level of significance. Results indicated that government expenditure has adverse and little effect on Real GDP while tax revenue has a positive and weak effect on Real GDP. From the findings mentioned above, the research manifests the fact that fiscal policy instruments bring to bear both positive and adverse effect on economic growth in Nigeria. This is in agreement with prior study of Omodero et al. (2016), who conclude that fiscal policy tools exert a mixed influence on the Nigerian economy. While some instruments react positively, others exert negative impact. The finding of this work concerning the effect of government spending on economic growth contradicts those obtained after Aluthge et al. (2021). The latter studied the effect of government expenditure on economic growth in Nigeria for 1070 to 2019. 2019 and concluded that capital expenditure has strong and positive effect on economic growth. Idris and Bakar (2017), Ihugba and Njoku (2017). Srinivasan (2013), Gupta (2018) and Diyoke et al. (2017) all obtained similar results with Aluthge et al. (2021). In the contrary, the finding

contradicts the previous study by Oyinlola and Akinibosun (2013) but agrees with Saidu and Ibrahim (2019) and Ebong et al. (2016) that observe adverse and weak effect of public spending on economic growth. Except that this study observed that the effect of tax revenue on economic growth is little, the finding of the study of positive causal influence of tax revenue on Nigeria's economic growth agrees with those of Wagner (1883), Ramsey (1927), Mirrless (1991), Anastassiou and Drissaki (2005), Murrthi (2013), Takumah (2014), Rosoiu (2015), Ofoegbu and Akwu (2016), Egbunike et al. (2018), Raifu (2018), Nguyen (2019), Gurdal et al. (2020), Hang et al. (2020) and Jabir et al. (2020). The paucity of the impact of tax revenue on economic growth in Nigeria could be partly explained by the observation made by Aliyu et al. (2020) earlier. Upon concluding a study on the effect of personal income tax, value added tax and domestic debt on GDP in Nigeria, Aliyu et al. (2020) remarked that Nigeria had poor economic growth because of a number of problems among which is insufficient revenue mobilization from non-oil sources. This had accounted for the poor contribution of tax revenue to economic growth in Nigeria. Further, our study notes the existence of long term connection between the explanatory and dependent variables analyzed. This aligns with the observation made in Chimobi (2016) and Katrakilidis and Tsaliki (2009).

5. Conclusion and Recommendations

This research employed the OLS multiple regression models evaluate the impacts of tax revenue and government expenditure on the Real GDP in Nigeria for 1990 to 2022, using *ex post facto* design. It complements several other studies done in this area which dwelt on tax revenue, government spending and economic growth from aggregated view-point. Results show that at 5 % level of significance, tax revenue and government spending exert little influence on Real GDP in Nigeria. In addition, the results suggest the non-uniformity concerning the directions of the influence of the explanatory variables on the dependent variable. The implication is that Nigeria's fiscal advancement and government spending have been conversely connected all these years. The results of the study have provided further empirical proof on the inadequacy of the contribution of tax revenue to the growth of Nigerian economy. In addition, the results have revealed the damaging effect of public spending on the economy

of Nigeria.

We recommend as follows: - The federal government should

(i) use tax policy tools to complement the adoption of effective monetary policy and maintain the rule of law to advance stability in the economy;

(ii) initiate a thorough structure for moving the fiscal policy program forward, while giving due attention to revenue, tax policy, public spending and financing;

(iii) step up efforts in the direction of boosting tax collection by plugging all loopholes Nigerian tax regulations and expanding the tax base through enrolling more prospective tax payers, especially the informal sector in the tax register (Aliyu et al,2020); (iv) reduce external borrowing and(v) ensure that capital and recurrent expenditures are properly managed and prioritized in such way as will increase the country's production capacity and accelerate economic growth.

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